

WHAT IS CLAIMED IS:

1. A recording medium having a data structure for managing reproduction duration of still images, comprising:

a data area storing presentation data multiplexed into a transport stream, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data;

a navigation area storing at least one playlist, the playlist including at least one playitem, the playitem indicating at least one of the still picture units to reproduce and providing duration information for display of the still picture in the still picture unit.

2. The recording medium of claim 1, wherein the related data in at least one still picture unit includes graphics data.

3. The recording medium of claim 1, wherein the related data in at least one still picture unit includes subtitle data.

4. The recording medium of claim 1, wherein the presentation data is multiplexed into the transport stream on a still picture unit by still picture unit basis.

5. The recording medium of claim 1, wherein the navigation area further

includes a clip information file, the clip information file including at least one entry point map, the entry point map including at least one entry point providing at least an address of a still picture in the transport stream.

6. The recording medium of claim 5, wherein the entry point map includes an entry point associated with each still picture unit.

7. The recording medium of claim 6, wherein

the duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

8. The recording medium of claim 1, wherein each elementary stream of the still picture and associated related data is aligned within the still picture unit.

9. The recording medium of claim 8, wherein each elementary stream is a packetized elementary stream.

10. The recording medium of claim 9, wherein each still picture unit includes one packet from each packetized elementary stream.

11. The recording medium of claim 10, wherein

the duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

12. The recording medium of claim 1, wherein the duration information indicates whether to display the still picture for one of a finite and an infinite period of time.

13. The recording medium of claim 1, wherein the data area stores the presentation data in a first clip file, and stores audio data in a second clip file.

14. The recording medium of claim 13, wherein the playlist further includes at least one sub-playitem, the sub-playitem providing navigation information for reproducing the audio data from the second clip file.

15. The recording medium of claim 1, wherein each still picture unit includes only one still picture.

16. A recording medium having a data structure for managing reproduction duration of still images, comprising:

a data area storing presentation data multiplexed into a transport stream in a first file and storing audio data in a second file, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data;

a navigation area storing at least one playlist, the playlist including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units to reproduce from the first file and providing duration information for display of the still picture in the still picture unit, and the sub-playitem providing navigation information for reproducing the audio data from the second file.

17. The recording medium of claim 16, wherein the related data in at least one still picture unit includes graphics data.

18. The recording medium of claim 16, wherein the related data in at least one still picture unit includes subtitle data.

19. The recording medium of claim 16, wherein the presentation data is

multiplexed into the transport stream on a still picture unit by still picture unit basis.

20. The recording medium of claim 16, wherein the navigation area further includes a clip information file, the clip information file including at least one entry point map, the entry point map including at least one entry point providing at least an address of a still picture in the transport stream.

21. The recording medium of claim 20, wherein the entry point map includes an entry point associated with each still picture unit.

22. The recording medium of claim 21, wherein

the duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

23. The recording medium of claim 16, wherein each elementary stream of the still picture and associated related data is aligned within the still picture unit.

24. The recording medium of claim 23, wherein each elementary stream is a packetized elementary stream.

25. The recording medium of claim 24, wherein each still picture unit includes one packet from each packetized elementary stream.

26. The recording medium of claim 25, wherein

the duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

27. The recording medium of claim 16, wherein the duration information indicates whether to display the still picture for one of a finite and an infinite period of time.

28. The recording medium of claim 16, wherein the first and second files are clip files.

29. The recording medium of claim 28, wherein the playlist further includes at least one sub-playitem, the sub-playitem providing navigation information for reproducing the audio data from the second clip file.

30. The recording medium of claim 16, wherein each still picture unit includes only one still picture.

31. A recording medium having a data structure for managing reproduction duration of still images, comprising:

- a data area storing at least one still picture;

- a navigation area storing at least one playlist and at least one clip information file, the playlist including at least one playitem, the playitem indicating at least one of the still picture to reproduce and providing duration information for display of the still picture, the duration information indicating whether to display the still picture for one of a finite and an infinite period of time, the clip information file including at least one entry point map, the entry point map including at an entry point associated with each still picture, each entry point providing at least an address of the associated still picture in the transport stream, at least a number of the entry points each include a presentation time stamp associated with the associated still picture such that, when the duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture

and the presentation time stamp in the next entry point.

32. A recording medium having a data structure for managing reproduction duration of still images, comprising:

- a data area storing a packetized elementary stream of still picture data, with each packet including a still picture;

- a navigation area storing at least one playlist, the playlist including at least one playitem, the playitem indicating at least one of the still pictures to reproduce and providing duration information for display of the still picture in the still picture unit, the duration information indicating whether to display the still picture for one of a finite and an infinite period of time; and

- a number of the packets including a presentation time stamp such that, when the duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

33. A method of recording a data structure for managing reproduction duration of at least one still image on a recording medium, comprising:

- recording presentation data multiplexed into a transport stream in a data area of the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data;

and

recording at least one playlist on the recording medium, the playlist including at least one playitem, the playitem indicating at least one of the still picture units to reproduce and providing duration information for display of the still picture in the still picture unit.

34. A method of reproducing a data structure for managing reproduction duration of at least one still image recorded on a recording medium, comprising:

reproducing presentation data multiplexed into a transport stream from a data area of the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data; and

reproducing at least one playlist from the recording medium, the playlist including at least one playitem, the playitem indicating at least one of the still picture units to reproduce and providing duration information for display of the still picture in the still picture unit.

35. An apparatus for recording a data structure for managing reproduction duration of at least one still image on a recording medium, comprising:

a driver for driving an optical recording device to record data on the

recording medium;

a controller for controlling the driver to record presentation data multiplexed into a transport stream in a data area of the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data; and the controller controlling the driver to record at least one playlist on the recording medium, the playlist including at least one playitem, the playitem indicating at least one of the still picture units to reproduce and providing duration information for display of the still picture in the still picture unit.

36. An apparatus for reproducing a data structure for managing reproduction duration of at least one still image recorded on a recording medium, comprising:

a driver for driving an optical reproducing device to reproduce data recorded on the recording medium;

a controller for controlling the driver to reproduce presentation data multiplexed into a transport stream from a data area of the recording medium, the presentation data being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data; and the controller controlling the driver to reproduce at least one playlist from the recording medium, the playlist including at least one playitem, the playitem indicating at least one of

the still picture units to reproduce and providing duration information for display of the still picture in the still picture unit.